

From: C Lauff <[REDACTED]> Ex 6
Sent: Friday, August 08, 2014 10:32 AM
To: Kareen Milcic; mike forbeck
Cc: Eric Gustafson; Dwight Shearer; K Burch; Kline, James; Lindsey, Deborah
Subject: Re: DOT-SP-11406 Radiation container stored on Cowden Well pad
Attachments: DSC06067.JPG; DSC07634.JPG; DSC08137.JPG; DSC08123.JPG; November 21, 2013 - Carter Impoundment - Liner Repairs (1).JPG; November 21, 2013 - Carter Impoundment - Liner Repairs (30).JPG; November 21, 2013 - Carter Impoundment - Liner Repairs (42).JPG; DSC07623.JPG; December 19, 2013 - Carter Impoundment - Red Dye in Impoundment & Liner Repairs (11).JPG; December 19, 2013 - Carter Impoundment - Red Dye in Impoundment & Liner Repairs (6).JPG

Kareen:

Thank you for the follow-up phone conversation last Friday 01 August 2014 regarding the radioactive container on the Cowden Well site. Our conversation generated a number of the following additional questions:

1. As you had advised me, the operator reported to you that the radiation was discovered during a second cleaning of the weir tanks. After the first cleaning and consolidation of material the radiation levels were reported at 363 pCi / liter for R-226 and 93 pCi / liter for the R-228 on April 2014. Would it be correct to infer the radiation levels would have been significantly higher prior to a first cleaning/emptying of the tanks in December 2012? What were those radiation levels prior to the first cleaning?
2. The sediment which flowed through the weir tanks and ultimately ended up in the impoundment, theoretically, would also demonstrate radiation. (See attached photos DSC06067 and DSC07634). As discussed, have you been able to determine had anyone including the DEP tested the sediment material for radiation? How / where was that sediment disposed?
3. As we had discussed, there have been a number of repairs made to the liner of the Carter Impoundment during maintenance last year. (See the attached photos DSC08137, DSC08123, Liner repairs 1, 30 and 42) Also, the operators used a shoulder held high pressure water cannon to spray through the cannon what appears to be the residuals from the bottom of the impoundment. (See photo DSC07623) Wouldn't this pressure washing action exacerbate sub-liner soil contamination by forcing contaminants through the holes in the liner? Has the operator documented to the DEP the extent of the holes and the subsequent repair work that was completed? No such information was identified in the DEP file for the Carter Impoundment during a recent file review.
4. The impoundment was partially filled with what appears to be fresh water and a red dye was added sometime in December 2013 to presumably confirm leak integrity of the liner (See attached Carter Impoundment Red dye photo's). Is it standard operating procedure to test the leak integrity to a point just below the level of the repairs or does proper protocol require testing the entire impoundment prior to returning it to service especially after the extensive repair work completed on the liner?
5. Lastly, the US EPA conducted testing on my property of the un-named tributary approximately 1000 feet downstream of the Carter Impoundment. The results showed increased level of Chlorides. I discussed this information with the DEP early last year – either Vince Yantko or Byron Miller. The information was immediately dismissed as road salt.

Considering the number of recent articles in the media regarding investigations of similarly designed impoundments in Washington County for elevated chlorides and holes in the liners, plus the added issue of the higher than normal radiation from the weir tanks, shouldn't the DEP be investigating the Carter Impoundment as well?

I realize I am offering questions which are outpacing your department's ability to quickly respond, but your help in looking into these matters is greatly appreciated.

Regards,

Chris Lauff

From: C Lauff

Sent: Sunday, July 27, 2014 12:35 PM

To: cmilcic@pa.gov ; mforbeck@pa.gov

Cc: [Jim Kline](mailto:Jim.Kline@epa.gov) ; Lindsey.Deborah@EPAMail.epa.gov

Subject: Re: DOT-SP-11406 Radiation container stored on Cowden Well pad

Careen / Mike:

Thank you for the returned call from the PA Departments of Environmental Protection – Oil & Gas and Waste Management on Friday July 18th regarding questions listed in my original e-mail (attached below) on the origin of the DOT-SP-11406 radiation container located at the Cowden Well pad in Mt. Pleasant Township, Washington County. As I had expressed, I do not believe the Radium 226 and 228 originated from the Cowden Well pad for the following reasons:

1. Four red Adler tanks were in service at the Carter impoundment prior to November 2012 (image DSC03767 note the Cowden well pad is visible in the background).
2. A reported spill and investigation by DEP water quality specialists Bryon Miller occurred early December 2012 (see attached Dec 12 email from Bryon Miller)
3. Reports from the operator to the United States Environmental Protection Agency (see attachment Jan 30 2013 page 2 paragraph 2 from K. Koromoski) and to Mt Pleasant Township (see attachment Dec 12, 2012 paragraph 3 from J. Cannon), among other things, state the weir tanks (Adler) were emptied and cleaned to include power washing, vacuuming and contents disposed per State regulations.
4. The cleaned empty Adler tanks were re-located sometime in December 2012 to the Cowden Well pad next to the Security station (DSC04180). The tanks remained there for nearly 18 months.
5. Three green Baker weir tanks were located at the Carter impoundment sometime during the spring of 2013 (DSC07203) and remained there until April 2014.
6. The Baker tanks and Adler tanks were removed late April 2014 and the DOT-SP-11406 was returned and currently is located on the Cowden well pad (IMG_1370 and DSC09196).

Both the Adler and Baker weir tanks were operational at the Carter impoundment, not the Cowden well pad. You had indicated the tanks (red Adler) located on the Cowden well pad were the source of the Radium 226 and 228. This would appear to be contradictory as the Adler tanks were reported in the two letters to be "emptied and cleaned" in 2012 prior to being moved to the Cowden well pad.

If upon reviewing the above information, the PA DEP still concludes the radiation originated from the red Adler tanks located on the Cowden well pad, then please address these additional questions:

1. What were the radiation levels in the red Adler tanks 1 1/2 years earlier prior to cleaning, emptying and being re-located to the Cowden well pad? The Form U's and 26R's along with their chemical analysis required by the DEP for the well sites the Carter impoundment serviced should provide some insight into the origin of the materials and radiation levels.
2. Will the PA DEP be contacting OSHA for possible investigation of exposure of the security staff who manned the security booth 24-7 during the 1 1/2 years the tanks were located within several feet of their post?

3. If the Adler tanks were radioactive while on the Cowden well pad, does this contradict the information provided in the two letters provided by the operator stating the containers were "emptied and cleaned" in 2012?

My concerns regarding this matter are obviously the possible health impact to my family and the surrounding residents. Even though it has been reported that the DOT-SP-11604 container is safe based on the current radiation levels for R-226 and R-228, your description of the events suggests this has been an ongoing issue for at least 1 1/2 years or possibly longer. I look forward to further discussing this matter with the PA DEP upon your return to the office this week.

Respectfully,

Chris Lauff

From: C Lauff

Sent: Saturday, June 07, 2014 10:32 AM

To: cmilcic@pa.gov

Cc: kburch@pa.gov

Subject: DOT-SP-11406 Radiation container stored on Cowden Well pad

Ms. Milcic:

Per our discussion this week, I have provided the attached documentation and photo's of the activities surrounding the radiation container currently stored on the Cowden Well pad.

Attached is a letter from Range Resources which was provided to the residents which states the source of the radiation was the Carter Impoundment.

I have included a photo of the Carter Impoundment in the foreground and the Cowden Well pad in the background. Note the impoundment is empty as of September 2013. It was cleaned and re-filled with fresh water in late 2013 / early 2014.

Included are the well completion reports for the Cowden Well 4H which has been completed since June 15, 2010 (with a deviated completion report submitted on September 23, 2010 and an amended completion report submitted on September 20, 2011). The other wells - 3H, 5H and 6H - at that site have the same dated reports.

Included are two photo's of the container in question on the Cowden Well pad.

The questions remain

1. Why is the DOT container stored at the Cowden Well site when Range states the material came from the Carter Impoundment? Even though they are in close proximity to one another, these are separately permitted projects.
2. Where did the radioactive material actually originate as it could not from the wells adjacent to the Carter impoundment as the impoundment was recently drained/cleaned and the wells have been completed for 4 years. There is concern that radioactive materials are being transported into / around our township without any knowledge of these activities.
3. Has the water in the impoundment been tested for radiation since the fluids and sediment passing through the weir tanks, which had contained the radioactive materials, would have drained into the impoundment?

Best regards,

Chris Lauff



